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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,867	07/24/2001	Gianni Trionfetti	TRIONFETTI=7	4025

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EXAMINER

MULLINS, BURTON S

ART UNIT PAPER NUMBER

2834

DATE MAILED: 02/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/910,867

Applicant(s)

TRIONFETTI, GIANNI

Examiner

Burton S. Mullins

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 9-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-12 is/are allowed.
- 6) ☒ Claim(s) 13 and 16 is/are rejected.
- 7) ☒ Claim(s) 14 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Objections*

1. Claims 9-10 and 13 are objected to because of the following informalities: In claim 9, line 6, change "trust" to ---thrust---. On line 8, change "trust" to --thrust--. In claim 10, line 2, change "9)" to -(9)--. In claim 13, line 10, change "trust" to ---thrust---. On line 12, change "trust" to --thrust--. Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birkenmaier et al. (DE 3710962) in view of Zehnbauer et al. (US 5,098,205). Birkenmeier teaches an open-ended spinning machine driven by an electric motor comprising a rotor 7 and stator 8 (Fig.1), as well as a support for shaft 4 comprising wall 1 and flanges 11 (Fig.1). Birkenmeier does not teach a fluid thrust bearing.

Zehnbauer teaches an aerostatic thrust bearing for an open-end spinning device comprising: a support shaft 11 defining a rotation axis and two end faces transverse to the rotation axis (generally denoted 12 and 111 in Fig.1); means comprising bearing block 3 for rotatably supporting shaft 11; means comprising drive 5 for rotating the shaft 11; a device for axial stopping of the rotor comprising a thrust unit (aerostatic thrust bearing 6) for exerting a repulsive force on end face 111 to axially stop shaft 11 (c.4, lines 50-54); said thrust unit comprising an abutment element or "bearing plate" 63 (Fig.2) defining an abutment surface

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adjacent to end face 111 (Figs. 1-2), and fluid-emitting means comprising central bore 7 (Fig. 2) for forming a layer of fluid (c. 3, lines 20-64; c. 4, lines 50-54) and maintaining an interstice, i.e. the bearing gap, between the abutment surface 63 and end face 111, said layer of fluid generating said repulsive force (c. 4, lines 50-54). Zehnbauer's fluid bearing absorbs axial loads while increasing rigidity and providing precise, secure axial guidance of the rotor shaft (c. 2, lines 6-24), thus overcoming the lack of adequate axial attenuation in prior art devices.

It would have been obvious to one of ordinary skill at the time of the invention to modify Birkenmeier's spinning machine and provide Zehnbauer's axial aerostatic bearing since this would have been desirable to absorb axial loads while increasing rigidity and providing precise, secure axial guidance of the rotor shaft.

Regarding claim 16, in Zehnbauer the fluid-emitting means (bore 7) comprises a means for feeding air under pressure since compressed air from a compressed air source (c. 6, lines 30-32) passes through the bore 7 to bear on rotor end face 111.

#### ***Response to Arguments***

4. Applicant's arguments with respect to claims 13 and 16 have been considered but are moot in view of the new ground(s) of rejection. Note that Zehnbauer discusses vibrations and imbalances in prior art machines (c. 1, lines 29-36). Zehnbauer's air bearing absorbs such axial loads while increasing rigidity (c. 2, lines 6-24). Increasing bearing rigidity minimizes vibrations that occur due to rotor imbalance.

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*Allowable Subject Matter*

5. Claims 9-12 are allowable pending correction to overcome the objections noted above.

As previously with Bock, Zehnbauer does not teach or suggest that his abutment element (bearing plate 63) comprises a flexible "foil element" with at least one hole therein, as described on p.7, lines 1-9 of the specification.

6. Claims 14-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Zehnbauer does not teach or suggest that his abutment element (bearing plate 63) comprises a flexible "foil element" with at least one hole therein as claimed in new claim 14.

*Conclusion*

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Burton S. Mullins whose telephone number is 305-7063. The examiner can normally be reached on Monday-Friday, 9 am to 5 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are 305-1341 for regular communications and 305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-0956.



Burton S. Mullins  
Primary Examiner  
Art Unit 2834

bsm  
February 4, 2003